



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1285; Directorate Identifier 2010-SW-073-AD]

RIN 2120-AA64

Airworthiness Directives; Eurocopter Deutschland GmbH Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for Eurocopter Deutschland GmbH (Eurocopter) Model BO-105A, BO-105C, BO-105LS A-1, BO-105LS A-3, and BO-105S helicopters, which proposed inspecting for debonding of the erosion protective shell (abrasion strip) on the leading edge of each main rotor blade. This SNPRM proposes to revise those inspection requirements by identifying specific dates of replacement of the applicable parts and identifying a specific inspection method for debonding of an abrasion strip.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket:

You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, Texas 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Jim Grigg, Manager, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email jim.grigg@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

On November 29, 2011, we issued a proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to Eurocopter Model BO-105A, BO-105C, BO-105LS A-1, BO-105LS A-3, and BO-105S helicopters with a main rotor blade, part number (P/N) 105-15103, 105-15141, 105-15141V001, 105-15143, 105-15150, 105-15150V001, 105-15152, 105-81013, 105-87214, 1120-15101, or 1120-15103; where the main rotor blade erosion protective shell was replaced between

September 2006 and March 2010. This proposal was published in the Federal Register as a notice of proposed rulemaking (NPRM) on December 6, 2011 (76 FR 76068). The NPRM proposed to require a one-time inspection of each main rotor blade for debonding of the erosion protective shell within 50 hours time-in-service (TIS). If debonding was detected during the inspection, the NPRM proposed replacing the main rotor blade with an airworthy main rotor blade before further flight. The proposed requirements were intended to detect debonding of the main rotor blade erosion protective shell, which could lead to an unbalanced main rotor, high vibration, damage to the tail boom or tail rotor, and loss of control of the helicopter.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Emergency AD No. 2010-0216-E, dated October 21, 2010 (corrected October 29, 2010), applicable to Eurocopter Model BO105 A, BO105 C, BO105 D, BO105 LS A-1, BO105 LS A-3, and BO105 S helicopters, all variants (except variants CB-5 and DBS-5). EASA advises that during an inspection on a BO105 helicopter, debonding was found on the erosion protective shell of a main rotor blade, and investigation showed the debonding was caused by incorrect installation of the erosion protective shell. In addition, EASA states that an incident occurred where a second BO105 helicopter lost its erosion protective shell during hover flight. EASA advises that this condition, if not corrected, could result in loss of the main rotor blade erosion protective shell during flight, leading to an unbalanced main rotor and high vibrations, which could damage the tail boom or tail rotor or result in loss of tail rotor control and loss of control of the helicopter.

Actions Since Previous NPRM was Issued

Since we issued the previous NPRM (76 FR 76068, December 6, 2011), we discovered the need for identifying specific dates of replacement of the applicable parts and identifying that a tap inspection would be the required method for inspecting for debonding of an abrasion strip. The previous NPRM stated the proposed AD would apply to certain part-numbered main rotor blades with a main rotor blade abrasion strip that was replaced between September 2006 and March 2010. This supplemental NPRM proposes clarifying the date range to be inclusive of September 1, 2006 through March 31, 2010. The previous NPRM also proposed to require inspecting for debonding of the abrasion strip along the leading edge of each main rotor blade. This supplemental NPRM clarifies that the proposed inspection method is a tap inspection.

Because these proposed changes expand the applicability and may increase the economic burden on some operators, the FAA will reopen the comment period to provide additional opportunity for public comment.

FAA's Determination

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other helicopters of these same type designs. Certain changes described above expand the scope of the original NPRM (76 FR 76068, December 6, 2011). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment.

Related Service Information

Eurocopter has issued Emergency Alert Service Bulletin (ASB) No. ASB BO105-

10-124, dated July 14, 2010, for the Model BO105 helicopter, with a main rotor blade, P/N 105-15103, 105-15141, 105-15141V001, 105-15143, 105-15150, 105-15150V001, 105-15152, 105-81013, 105-87214, 1120-15101, or 1120-15103, where the main rotor blade erosion protective shell was replaced between September 2006 and March 2010. Eurocopter also issued Emergency ASB No. ASB-BO105LS-10-12, dated July 14, 2010, for the Model BO105LS A-3 helicopter, with a main rotor blade, P/N 105-15141, where the main rotor blade erosion protective shell was replaced between September 2006 and March 2010. Both Emergency ASBs exclude helicopters from this inspection if each main rotor blade was inspected at the last 600 flight hour inspection and no debonding was detected during the inspection. Both Emergency ASBs specified a one-time inspection of the main rotor blades within the next 50 flight hours to determine if debonding of the main rotor blade erosion protective shell has occurred.

Eurocopter subsequently issued Emergency ASB No. ASB BO105-10-124, Revision 1, dated October 18, 2010, and Emergency ASB No. ASB-BO105LS-10-12, Revision 1, dated October 20, 2010. These service bulletins specify the same inspection requirements as the original service bulletins, but revise the inspection compliance time from 50 flight hours to 10 flight hours. EASA classified these service bulletins as mandatory and issued EASA Emergency AD No. 2010-0216-E, dated October 21, 2010 (corrected October 29, 2010) to ensure the continued airworthiness of these helicopters.

Proposed Requirements of the Supplemental NPRM

This proposed AD would require, within 50 hours TIS, inspecting for debonding by tap testing the abrasion strip of the leading edge of each main rotor blade. If there is debonding in any area of the abrasion strip, this proposed AD would require, before

further flight, replacing the main rotor blade.

Differences Between this Supplemental NPRM and the EASA AD

The differences between this proposed AD and the EASA AD are:

- The EASA AD allows compliance within “10 flight hours, or 4 flight cycles, or 4 weeks, whichever occurs first,” and this proposed AD would require compliance within 50 hours TIS.

- The EASA AD allows you to replace the main rotor blade erosion protective shell if debonding is detected, and this proposed AD would require you to replace the main rotor blade with an airworthy main rotor blade if debonding is detected.

- The EASA AD is applicable to the Model BO105 D helicopter; however, this proposed AD would not include this model because it does not have a type certificate in the U.S.

Costs of Compliance

We estimate that this AD would affect 97 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this proposed AD. It would take about 1.0 work-hour per helicopter to perform the inspection at an average labor rate of \$85 per work-hour. Based on these figures, we estimate the cost of the inspection on U.S. operators would be \$8,245 or \$85 per helicopter. If there is debonding, we estimate that it would take about 2 work-hours to replace a main rotor blade and required parts would cost \$114,182, for a total cost of \$114,352 per blade. We have no way of determining how many operators will incur replacement costs.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on

aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a

substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

EUROCOPTER DEUTSCHLAND GmbH: Docket No. FAA-2011-1285; Directorate Identifier 2010-SW-073-AD.

(a) Applicability.

This AD applies to Model BO-105A, BO-105C, BO-105LS A-1, BO-105LS A-3, and BO-105S helicopters, with a main rotor blade, part number 105-15103, 105-15141, 105-15141V001, 105-15143, 105-15150, 105-15150V001, 105-15152, 105-81013, 105-87214, 1120-15101, or 1120-15103; where the main rotor blade erosion protective shell (abrasion strip) was replaced between September 1, 2006 and March 31, 2010, inclusive; certificated in any category.

(b) Unsafe Condition.

This AD defines the unsafe condition as debonding of a main rotor blade erosion protective shell (abrasion strip). This condition could result in loss of the abrasion strip and an unbalanced main rotor, high vibration, damage to the tail boom or tail rotor, and loss of control of the helicopter.

(c) Compliance.

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(d) Required Actions.

(1) Within 50 hours time-in-service, inspect the main rotor blade for debonding of the erosion protective shell by tap testing the abrasion strip of the leading edge of each main rotor blade.

(2) If the abrasion strip is debonding in any area, before further flight, replace the main rotor blade.

(e) Alternative Methods of Compliance (AMOCs).

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Jim Grigg, Manager, Safety Management Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email jim.grigg@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or

certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(f) Additional Information.

(1) Eurocopter Emergency Alert Service Bulletin No. ASB BO105-10-124, Revision 1, dated October 18, 2010, and No. ASB-BO105LS-10-12, Revision 1, dated October 20, 2010, which are not incorporated by reference, contain additional information about the subject of this AD. For this service information, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, Texas 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in European Aviation Safety Agency Emergency AD No. 2010-0216-E, dated October 21, 2010 (corrected October 29, 2010).

(g) Subject.

Joint Aircraft Service Component (JASC) Code: 6210, Main Rotor Blades.

Issued in Fort Worth, Texas, on December 12, 2012.

S. Frances Cox,

Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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